

Claims

1-15 Canceled

16. (New) A vehicle steering mechanism for motor vehicles, the mechanism comprising:

a steering handle that can be operated by a driver;

a positioning assembly coordinated with steered vehicle wheels, wherein the assembly is effectively connected with the steering handle and the steered vehicle wheels can be swiveled by use of additional elements, such as tie rods and a steering arm, in order to set a specifically desired steering angle, and the positioning assembly is a hydraulic assembly with two hydraulic chambers which are divided by a hydraulic piston and can be stressed by pressure of a hydraulic pressure source; and

a valve unit, wherein the hydraulic assembly can be connected with the hydraulic pressure source or with a pressure medium supply container by the valve unit, and a steering support can be adjusted by the valve unit.

17. (New) A vehicle steering mechanism according to claim 16, wherein the valve unit has a hydraulic slide valve by which a steering support is controlled through a continuous adjustment of a pressure difference between the two hydraulic chambers.

18. (New) A vehicle steering mechanism according to claim 17, wherein the valve unit is a continuously adjustable slide valve with three final switching positions, with a first final switching position in which a pressure medium can be introduced into the two hydraulic chambers or can be removed from the two hydraulic chambers, with a second final switching position, in which the pressure medium can be introduced into a first hydraulic chamber and can be removed from a second hydraulic

AP10882

chamber, and with a third final switching position, in which the pressure medium can be removed from the first hydraulic chamber and can be introduced into the second hydraulic chamber.

19. (New) A vehicle steering mechanism according to claim 18, the hydraulic slide valve of an electrical actuator can be continuously adjusted between the different final switching positions through a linear movement of a valve gate, preferably by means of a servodrive unit and a gear or electromagnet, if applicable.
20. (New) A vehicle steering mechanism according to claim 19, wherein a distance sensor is provided for the hydraulic slide valve, and the sensor is used to determine linear movement of the valve gate.
- 21 (New) A vehicle steering mechanism according to claim 17, wherein the hydraulic slide valve has control edges, by which a specific pressure difference between the two hydraulic chambers is adjusted continuously during a linear movement of the valve gate.
22. (New) A vehicle steering mechanism according to claim 16, wherein the valve unit has at least four analogized valves, preferably 2 flow-free closed (SG) and 2 flow-free open (SO) analogue valves, or valves which can be operated in an analogous manner, for the purpose of controlling the pressure in both of the hydraulic chambers.
23. (New) A vehicle steering mechanism according to claim 16, wherein a safety valve is provided for directly connecting the two hydraulic chambers with one another.
24. (New) A vehicle steering mechanism according to claim 23, wherein a hydraulic

AP10882

slide valve, which can be switched into different switching positions by two hydraulic valves through a linear movement of a safety valve switching element, is provided as a safety valve.

25. (New) A vehicle steering mechanism according to claim 16, wherein two or more hydraulic pressure sensors are provided for determining the hydraulic pressure in the two or more hydraulic chambers, and a steering support can be adjusted in accordance with the determined pressures.
26. (New) A vehicle steering mechanism according to claim 16, wherein a torque sensor is provided, which determines the torque on a steering wheel shaft of the vehicle steering mechanism, and a steering support can be adjusted in accordance with the determined torques.
27. (New) A vehicle steering mechanism according to claim 16, wherein the steering mechanism is a steering mechanism with an open center in which, in a neutral position of the steering mechanism, such as when the steering wheel is in the straight-ahead position, essentially no pressure difference is present between the chambers divided by the hydraulic piston, and the hydraulic pressure source has a pump which is connected with the drive motor of the motor vehicle via a drive unit.
28. (New) A vehicle steering mechanism according to claim 16, the steering mechanism is a steering mechanism with a closed center in which, in a neutral position of the steering mechanism a hydraulic pressure or a pressure difference can essentially be present in the chambers divided by the hydraulic piston, and the hydraulic pressure source has a pump which can be connected with the motor vehicle drive unit via a coupling unit and by a drive unit.

AP10882

29. (New) A vehicle steering mechanism according to claim 28, wherein the hydraulic pressure source has a high pressure reservoir, and the pump is operated in order to load the high pressure reservoir.
30. (New) A vehicle steering mechanism according to claim 29, wherein a hydraulic pressure sensor is provided, and the hydraulic pressure in the high pressure reservoir is determined by the pressure sensor.